



(11) **EP 1 505 251 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**14.02.2007 Bulletin 2007/07**

(51) Int Cl.:  
**E21B 43/10 (2006.01) E21B 7/20 (2006.01)**  
**E21B 10/64 (2006.01) E21B 33/138 (2006.01)**

(43) Date of publication A2:  
**09.02.2005 Bulletin 2005/06**

(21) Application number: **04105800.9**

(22) Date of filing: **22.12.1999**

(84) Designated Contracting States:  
**DE FR GB NL**

(30) Priority: **22.12.1998 GB 9828234**  
**15.01.1999 GB 9900835**  
**08.10.1999 GB 9923783**  
**13.10.1999 GB 9924189**

(62) Document number(s) of the earlier application(s) in  
accordance with Art. 76 EPC:  
**99962308.5 / 1 141 517**

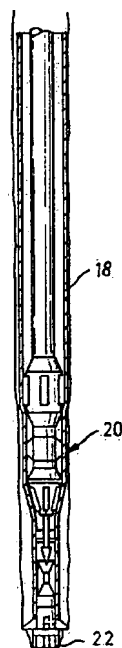
(71) Applicant: **WEATHERFORD/LAMB, INC.**  
**Houston**  
**Texas 77027 (US)**

(72) Inventors:  
• **METCALFE, Paul, David**  
**AB14 0NP, Peterculter,**  
**Aberdeenshire (GB)**  
• **SIMPSON, Neil, Andrew, Abercrombie**  
**AB1 4QX, Portlethen,**  
**Aberdeenshire (GB)**

(74) Representative: **Talbot-Ponsonby, Daniel**  
**Frederick et al**  
**Marks & Clerk**  
**4220 Nash Court**  
**Oxford Business Park South**  
**Oxford OX4 2RU (GB)**

(54) **Drilling method**

(57) A drilling method comprises advancing a drill string through a cased section of a wellbore. The drill string comprises an expandable tubular, a drill assembly having a drill bit, and a tubing expander. The expandable tubular is advanced through the wellbore below the cased section, and at least a portion of the expandable tubular is expanded into the drilled wellbore using the expander. The expandable tubular does not overlap the cased section of the wellbore.



**Fig.5**

**EP 1 505 251 A3**



European Patent  
Office

## EUROPEAN SEARCH REPORT

Application Number  
EP 04 10 5800

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 1 981 525 A (B.E. PRICE) 20 November 1934 (1934-11-20) * page 4, lines 43-105 * * page 4, lines 134-141 * * figure 1 *	1-56	INV. E21B43/10 E21B7/20 E21B10/64 E21B33/138
A	WO 97/20130 A2 (PETROLINE WIRELINE SERVICES [GB]; CAMPBELL ALASDAIR [GB]; METCALFE PAU) 5 June 1997 (1997-06-05)  * page 8, lines 7-2 * * page 10, line 26 - page 11, line 3 * * figure 1 *	1,10,21, 22,24, 29,49, 55,56	
A	US 4 483 399 A (COLGATE STIRLING A [US]) 20 November 1984 (1984-11-20)  * page 6, line 68 - page 7, line 3 * * column 8, lines 8-34 * * figures 1,2 *	1,10,21, 22,24, 29,49, 55,56	
A	US 2 383 214 A (A.L. PROUT) 21 August 1945 (1945-08-21)  * figure 1 *	1,10,21, 22,24, 29,49, 55,56	E21B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 5 January 2007	Examiner Schouten, Adri
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>			

4  
EPO FORM 1503.00.02 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 04 10 5800

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

05-01-2007

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 1981525	A	20-11-1934	NONE
WO 9720130	A2	05-06-1997	AU 7634996 A 19-06-1997 DE 69613394 D1 19-07-2001 DE 69613394 T2 23-05-2002 EP 0862681 A2 09-09-1998 US 6012523 A 11-01-2000
US 4483399	A	20-11-1984	NONE
US 2383214	A	21-08-1945	NONE

EPO FORM P459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82